STIC Biotechnology Systems Branch

RAW SEQUENCE LISTING
ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: _10/535,433_
Source: _Pct/10_
Date Processed by STIC: _5/27/05_

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.
PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:
1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY
FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, TELEPHONE: 571-272-2510; FAX: 571-273-0221

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE **CHECKER VERSION 4.2.2 PROGRAM**, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:
        http://www.uspto.gov/web/offices/pac/checker/chkrnote.htm

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.
Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.
Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<http://www.uspto.gov/ebc/efs/downloads/documents.htm> , EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
3. Hand Carry, Federal Express, United Parcel Service, or other delivery service (EFFECTIVE 01/14/05):
   U.S. Patent and Trademark Office, Mail Stop Sequence, Customer Window, Randolph Building, 401 Dulany Street, Alexandria, VA 22314

Revised 01/24/05

Raw Sequence Listing Error Summary

ERROR DETECTED	SUGGESTED CORRECTION	SERIAL NUMBER: _10/535,433_

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

1 ___ Wrapped Nucleics
Wrapped Aminos
The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."

2 ___ Invalid Line Length The rules require that a line not exceed 72 characters in length. This includes white spaces.

3 ___ Misaligned Amino
Numbering
The numbering under each 5th amino acid is misaligned. Do not use tab codes between numbers; use space characters, instead.

4 ___ Non-ASCII The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.

3-4

5 ✓ Variable Length Sequence(s) ___ contain n's or Xaa's representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.

6 ___ PatentIn 2.0
"bug"
A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s) _____. Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.

7 ___ Skipped Sequences
(OLD RULES)
Sequence(s) ___ missing. If intentional, please insert the following lines for each skipped sequence:
(2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
(i)   SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading)
(xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
This sequence is intentionally skipped

Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences.

8 ___ Skipped Sequences
(NEW RULES)
Sequence(s) ___ missing. If intentional, please insert the following lines for each skipped sequence.
<210> sequence id number
<400> sequence id number
000

9 ___ Use of n's or Xaa's
(NEW RULES)
Use of n's and/or Xaa's have been detected in the Sequence Listing.
Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present.
In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.

10 ___ Invalid <213>
Response
Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown or is Artificial Sequence

11 ___ Use of <220> Sequence(s) ___ missing the <220> "Feature" and associated numeric identifiers and responses. Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section.
(See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)

12 ___ PatentIn 2.0
"bug"
Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.

13 ___ Misuse of n/Xaa "n" can only represent a single <u>nucleotide</u>; "Xaa" can only represent a single <u>amino acid</u>

AMC – Biotechnology Systems Branch – 09/09/2003

PCT

RAW SEQUENCE LISTING   DATE: 05/27/2005
PATENT APPLICATION: US/10/535,433   TIME: 10:48:09

Input Set : A:\PCT_GB2003_004983.ST25.txt
Output Set: N:\CRF4\05272005\J535433.raw

```
     3 <110> APPLICANT: University of Warwick
     5 <120> TITLE OF INVENTION: Antibody Secretion
     7 <130> FILE REFERENCE: P708122PCT
C--> 9 <140> CURRENT APPLICATION NUMBER: US/10/535,433
C--> 10 <141> CURRENT FILING DATE: 2005-05-18
    12 <150> PRIOR APPLICATION NUMBER: GB0226878.7
    13 <151> PRIOR FILING DATE: 2002-11-18
    15 <160> NUMBER OF SEQ ID NOS: 69
    17 <170> SOFTWARE: PatentIn version 3.2
    19 <210> SEQ ID NO: 1
    20 <211> LENGTH: 6
    21 <212> TYPE: PRT
    22 <213> ORGANISM: Artificial sequence
    24 <220> FEATURE:
    25 <223> OTHER INFORMATION: Modified targeting signal in the final antibody heavy chain
    28 <220> FEATURE:
    29 <221> NAME/KEY: MISC_FEATURE
    30 <222> LOCATION: (1)..(1)
    31 <223> OTHER INFORMATION: Asn, His or Leu
    33 <220> FEATURE:
    34 <221> NAME/KEY: MISC_FEATURE
    35 <222> LOCATION: (2)..(2)
    36 <223> OTHER INFORMATION: Val or Tyr
    38 <220> FEATURE:
    39 <221> NAME/KEY: MISC_FEATURE
    40 <222> LOCATION: (3)..(3)
    41 <223> OTHER INFORMATION: Ser or Asn
    43 <220> FEATURE:
    44 <221> NAME/KEY: MISC_FEATURE
    45 <222> LOCATION: (5)..(5)
    46 <223> OTHER INFORMATION: An aliphatic amino acid, especially Val or Leu
    48 <220> FEATURE:
    49 <221> NAME/KEY: misc_feature
    50 <222> LOCATION: (6)..(6)
    51 <223> OTHER INFORMATION: Xaa can be any naturally occurring amino acid
    53 <400> SEQUENCE: 1
W-->55 Xaa Xaa Xaa Val Ser Xaa
    56 1               5
    59 <210> SEQ ID NO: 2
    60 <211> LENGTH: 6
    61 <212> TYPE: PRT
    62 <213> ORGANISM: Artificial sequence
    64 <220> FEATURE:
```

[handwritten annotations:] Does Not Comply — Corrected Diskette Needed — pp 1-3

[handwritten annotation near line 41-46:] "Ser" can only represent itself. Use Xaa and explain in <220>-<223> section

RAW SEQUENCE LISTING   DATE: 05/27/2005
PATENT APPLICATION: US/10/535,433   TIME: 10:48:09

                Input Set : A:\PCT_GB2003_004983.ST25.txt
                Output Set: N:\CRF4\05272005\J535433.raw

65 <223> OTHER INFORMATION: Modified targeting signal in the final antibody heavy chain
67 <400> SEQUENCE: 2
69 Asn Val Ser Val Ser Val
70 1   5
73 <210> SEQ ID NO: 3
74 <211> LENGTH: 3
75 <212> TYPE: PRT
76 <213> ORGANISM: Artificial sequence
78 <220> FEATURE:
79 <223> OTHER INFORMATION: Modified targeting signal in the final antibody heavy chain
82 <220> FEATURE:
83 <221> NAME/KEY: MISC_FEATURE
84 <222> LOCATION: (1)..(1)
85 <223> OTHER INFORMATION: m copies of, independently, any amino acid with the proviso
that
86   it is not selected from Ile, Leu or forms the consecutive
87   sequence described in SEQ ID:4. m is an integer of at least 2.
88   Preferably, m is between 4 and 20, especially 5 to 10.
90 <220> FEATURE:
91 <221> NAME/KEY: MISC_FEATURE
92 <222> LOCATION: (3)..(3)
93 <223> OTHER INFORMATION: n copies of any amino acid, the presence of each amino acid
is
94   independent of the other(s). n is an integer of 0 to 5.
95   Preferably n= 0 or 1, especially 1. This amino acid is most
96   preferably Tyr or Ala, especially Ala. Preferably
98 <220> FEATURE:
99 <221> NAME/KEY: MISC_FEATURE
100 <222> LOCATION: (3)..(3)
101 <223> OTHER INFORMATION: n copies of any amino acid, the presence of each amino acid
is
102   independent of the other(s). n is an integer of 0 to 5.
103   Preferably n= 0 or 1, especially 1. This amino acid is most
104   preferably Tyr or Ala, especially Ala.
106 <400> SEQUENCE: 3
W--> 108 Xaa Cys Xaa
109 1
112 <210> SEQ ID NO: 4
113 <211> LENGTH: 6
114 <212> TYPE: PRT
115 <213> ORGANISM: Artificial sequence
117 <220> FEATURE:
118 <223> OTHER INFORMATION: For definition of X at position 1 see SEQ ID: 3
121 <220> FEATURE:
122 <221> NAME/KEY: MISC_FEATURE
123 <222> LOCATION: (1)..(1)
124 <223> OTHER INFORMATION: Asn, His or Leu
126 <220> FEATURE:
127 <221> NAME/KEY: MISC_FEATURE
128 <222> LOCATION: (2)..(2)
129 <223> OTHER INFORMATION: Val or Tyr
131 <220> FEATURE:

[handwritten annotations:] variable length not permitted. (see item 5 on Error Summary Sheet)

[handwritten:] This is a duplicate of above

[handwritten:] same error (see item 5 on Error Summary Sheet)

[handwritten:] This needs explanation in <2207-<2237 section.

[handwritten:] variable length not permitted

RAW SEQUENCE LISTING   DATE: 05/27/2005
PATENT APPLICATION: US/10/535,433   TIME: 10:48:09

                Input Set : A:\PCT_GB2003_004983.ST25.txt
                Output Set: N:\CRF4\05272005\J535433.raw

```
     132 <221> NAME/KEY: MISC_FEATURE
     133 <222> LOCATION: (3)..(3)
     134 <223> OTHER INFORMATION: Ser or Asn
     136 <220> FEATURE:
     137 <221> NAME/KEY: MISC_FEATURE
     138 <222> LOCATION: (4)..(4)
     139 <223> OTHER INFORMATION: Any aliphatic amino acid
     141 <220> FEATURE:
     142 <221> NAME/KEY: misc_feature
     143 <222> LOCATION: (6)..(6)
     144 <223> OTHER INFORMATION: Xaa can be any naturally occurring amino acid
     146 <400> SEQUENCE: 4
W--> 148 Xaa Xaa Xaa Val Ser Xaa
     149 1               5
     152 <210> SEQ ID NO: 5
     153 <211> LENGTH: 18
     154 <212> TYPE: PRT
     155 <213> ORGANISM: Artificial sequence
     157 <220> FEATURE:
     158 <223> OTHER INFORMATION: Modified targeting signal in the final antibody heavy chain
     161 <220> FEATURE:
     162 <221> NAME/KEY: MISC_FEATURE
     163 <222> LOCATION: (3)..(3)
     164 <223> OTHER INFORMATION: Asn, His or Leu. Preferably Leu
     166 <220> FEATURE:
     167 <221> NAME/KEY: MISC_FEATURE
     168 <222> LOCATION: (4)..(4)
     169 <223> OTHER INFORMATION: Val or Tyr, preferably Val
     171 <220> FEATURE:
     172 <221> NAME/KEY: MISC_FEATURE
     173 <222> LOCATION: (5)..(5)
     174 <223> OTHER INFORMATION: Ser or Asn
     176 <220> FEATURE:
     177 <221> NAME/KEY: MISC_FEATURE
     178 <222> LOCATION: (8)..(8)
     179 <223> OTHER INFORMATION: An aliphatic amino acid, preferably Val or Leu
     181 <220> FEATURE:
     182 <221> NAME/KEY: MISC_FEATURE
     183 <222> LOCATION: (9)..(9)
     184 <223> OTHER INFORMATION: An aliphatic amino acid, preferably Ile, Val or Leu
     186 <220> FEATURE:
     187 <221> NAME/KEY: MISC_FEATURE
     188 <222> LOCATION: (10)..(10)
     189 <223> OTHER INFORMATION: Met, Val or Leu, preferably Met
     191 <220> FEATURE:
     192 <221> NAME/KEY: MISC_FEATURE
     193 <222> LOCATION: (11)..(11)
     194 <223> OTHER INFORMATION: Ser or Ala
     196 <220> FEATURE:
```

[handwritten annotation: Val can only represent itself. Use Xaa and explain.]

```
197 <221> NAME/KEY: MISC_FEATURE
198 <222> LOCATION: (12)..(12)
199 <223> OTHER INFORMATION: Asp or Glu
201 <220> FEATURE:
202 <221> NAME/KEY: MISC_FEATURE
203 <222> LOCATION: (13)..(13)
204 <223> OTHER INFORMATION: Any amino acid, preferably Gly, Val, Ala or Thr
206 <220> FEATURE:
207 <221> NAME/KEY: MISC_FEATURE
208 <222> LOCATION: (14)..(14)
209 <223> OTHER INFORMATION: Asp, Glu, Gly, or Ala, preferably Asp
211 <220> FEATURE:
212 <221> NAME/KEY: MISC_FEATURE
213 <222> LOCATION: (15)..(15)
214 <223> OTHER INFORMATION: Gly or Ser, preferably Gly
216 <220> FEATURE:
217 <221> NAME/KEY: MISC_FEATURE
218 <222> LOCATION: (16)..(16)
219 <223> OTHER INFORMATION: Ile, Thr, Val, Glx or Ala, preferably Ile or Thr
221 <220> FEATURE:
222 <221> NAME/KEY: MISC_FEATURE
223 <222> LOCATION: (18)..(18)
224 <223> OTHER INFORMATION: May or may not be present and where present is Ala or Tyr.
Most
225         preferably, where this amino acid present it is Ala.
227 <400> SEQUENCE: 5
W--> 229 Pro Thr Xaa Xaa Xaa Val Ser Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
230 1               5                   10                  15
233 Cys Xaa
237 <210> SEQ ID NO: 6
238 <211> LENGTH: 6
239 <212> TYPE: PRT
240 <213> ORGANISM: Artificial sequence
242 <220> FEATURE:
243 <223> OTHER INFORMATION: Modified targeting signal in the final antibody heavy chain
246 <220> FEATURE:
247 <221> NAME/KEY: MISC_FEATURE
248 <222> LOCATION: (1)..(1)
249 <223> OTHER INFORMATION: Asn, His or Leu
251 <220> FEATURE:
252 <221> NAME/KEY: MISC_FEATURE
253 <222> LOCATION: (2)..(2)
254 <223> OTHER INFORMATION: Val or Tyr
256 <220> FEATURE:
257 <221> NAME/KEY: MISC_FEATURE
258 <222> LOCATION: (3)..(3)
259 <223> OTHER INFORMATION: Ser or Asn
261 <220> FEATURE:
262 <221> NAME/KEY: MISC_FEATURE
263 <222> LOCATION: (6)..(6)
```

```
       264 <223> OTHER INFORMATION: Aliphatic amino acid
       266 <400> SEQUENCE: 6
W-->   268 Xaa Xaa Xaa Val Ser Xaa
       269 1               5
       272 <210> SEQ ID NO: 7
       273 <211> LENGTH: 28
       274 <212> TYPE: PRT
       275 <213> ORGANISM: Artificial sequence
       277 <220> FEATURE:
       278 <223> OTHER INFORMATION: Modified targeting signal in the final antibody heavy chain
       280 <400> SEQUENCE: 7
       282 Ser Cys Met Val Gly His Glu Ala Leu Pro Met Asn Phe Thr Gln Lys
       283 1               5                   10                  15
       286 Thr Ile Asp Arg Leu Ser Gly Lys Pro Ala Cys Tyr
       287             20                  25
       290 <210> SEQ ID NO: 8
       291 <211> LENGTH: 30
       292 <212> TYPE: PRT
       293 <213> ORGANISM: Artificial sequence
       295 <220> FEATURE:
       296 <223> OTHER INFORMATION: Modified targeting signal in the final antibody heavy chain
       298 <400> SEQUENCE: 8
       300 Ser Cys Met Val Gly His Glu Ala Leu Pro Met Asn Phe Thr Gln Lys
       301 1               5                   10                  15
       304 Thr Ile Asp Arg Leu Ser Gly Lys Pro Ala Ala Ala Cys Tyr
       305             20                  25                  30
       308 <210> SEQ ID NO: 9
       309 <211> LENGTH: 38
       310 <212> TYPE: PRT
       311 <213> ORGANISM: Artificial sequence
       313 <220> FEATURE:
       314 <223> OTHER INFORMATION: Modified targeting signal in the final antibody heavy chain
       316 <400> SEQUENCE: 9
       318 Ser Cys Met Val Gly His Glu Ala Leu Pro Met Asn Phe Thr Gln Lys
       319 1               5                   10                  15
       322 Thr Ile Asp Arg Leu Ser Gly Lys Pro His Ala Ser Thr Pro Glu Pro
       323             20                  25                  30
       326 Asp Pro Val Ala Cys Tyr
       327             35
       330 <210> SEQ ID NO: 10
       331 <211> LENGTH: 27
       332 <212> TYPE: DNA
       333 <213> ORGANISM: Artificial sequence
       335 <220> FEATURE:
       336 <223> OTHER INFORMATION: Synthetic oligonucleotide
       338 <400> SEQUENCE: 10
       339 ccatcgatgg aatggacctg ggttttt                                    27
       342 <210> SEQ ID NO: 11
       343 <211> LENGTH: 27
```

RAW SEQUENCE LISTING ERROR SUMMARY   DATE: 05/27/2005
PATENT APPLICATION: US/10/535,433   TIME: 10:48:10

    Input Set : **A:\PCT_GB2003_004983.ST25.txt**
    Output Set: **N:\CRF4\05272005\J535433.raw**

Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the
Sequence Listing to ensure that a corresponding explanation is presented in the <220>
to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; Xaa Pos. 1,2,,3,6
Seq#:3; Xaa Pos. 1,3
Seq#:4; Xaa Pos. 1,2,3,6
Seq#:5; Xaa Pos. 3,4,5,8,9,10,11,12,13,14,15,16,18
Seq#:6; Xaa Pos. 1,2,3,6

VERIFICATION SUMMARY   DATE: 05/27/2005
PATENT APPLICATION: **US/10/535,433** TIME: 10:48:10

     Input Set : **A:\PCT_GB2003_004983.ST25.txt**
     Output Set: **N:\CRF4\05272005\J535433.raw**

```
L:9 M:270 C: Current Application Number differs, Replaced Current Application Number
L:10 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:55 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:0
L:108 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0
L:148 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:0
L:229 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:0
M:341 Repeated in SeqNo=5
L:268 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:0
```